

WHAT IS CLAIMED IS:

1. An image reading device comprising:

an image reading unit comprising a plurality of optical reading sensors aligned in a row, the image reading unit outputting an image signal based on an image read by the plurality of optical reading sensors;

a characteristic storage unit that stores the characteristic of the image reading unit in the form of a reference image signal level curve and one of a predetermined coefficient and a threshold level curve, the reference image signal level curve being obtained by correcting an image signal curve outputted by the reading unit when the optical reading sensors reads an image of a predetermined white reference member at a factory so that a peak value of the image signal curve matches a predetermined maximum readable range, and the threshold level curve being obtained by multiplying the reference image signal level curve by the predetermined coefficient;

a correction coefficient calculator that determines a correction coefficient which provides a part of the present image signal level curve being matched with a part of the reference signal level curve to produce a corrected image signal level curve; and

a correction output unit that produces a binary output signal of the corrected image signal level curve by compar-

ing the corrected image signal level curve with either the threshold level curve stored in the characteristic storage unit or a threshold level curve obtained by multiplying the reference image signal level curve by the predetermined coefficient.

2. The image signal reading device as claimed in claim 1, wherein the correction coefficient calculator comprises:

reading means that reads an image from a white reference surface provided at a reading position to obtain a present image signal level curve before image data is actually retrieved using the reading unit;

comparing means that compares the present image signal level curve with the reference image signal level curve stored in the characteristic storage unit; and

determining means that determines a correction coefficient required to match at least the portion of the present image signal level curve with the portion of the reference signal level curve.

3. The image reading device as claimed in claim 2, wherein the correction output unit comprises outputting means that outputs a corrected image signal level curve by multiplying the correction coefficient by the present signal level curve.

4. The image reading device as claimed in claim 1, wherein the plurality of optical image sensors comprise

contact image sensors.

5. An electronic board comprising:

a white board on which an image is drawn;

an image reading unit comprising a plurality of optical reading sensors aligned in a row, the image reading unit outputting an image signal based on the image on the white board read by the plurality of optical reading sensors;

a characteristic storage unit that stores the characteristic of the image reading unit in the form of a reference image signal level curve and one of a predetermined coefficient and a threshold level curve, the reference image signal level curve being obtained by correcting an image signal curve outputted by the reading unit when the optical reading sensors reads an image of a predetermined white reference member at a factory so that a peak value of the image signal curve matches a predetermined maximum readable range, and the threshold level curve being obtained by multiplying the reference image signal level curve by the predetermined coefficient;

a correction coefficient calculator that determines a correction coefficient which provides a part of the present image signal level curve being matched with a part of the reference signal level curve to produce a corrected image signal level curve;

a correction output unit that produces a binary output

signal of the corrected image signal level curve by comparing the corrected image signal level curve with either the threshold level curve stored in the characteristic storage unit or a threshold level curve obtained by multiplying the reference image signal level curve by the predetermined coefficient; and

printing means that prints an image on an image recording medium based on the binary output signal.

6. The electronic board as claimed in claim 5, wherein the correction coefficient calculator comprises:

reading means that reads an image from a white reference surface provided at a reading position to obtain a present image signal level curve before image data is actually retrieved using the reading unit;

comparing means that compares the present image signal level curve with the reference image signal level curve stored in the characteristic storage unit; and

determining means that determines a correction coefficient required to match at least the portion of the present image signal level curve with the portion of the reference signal level curve.

7. The electronic board as claimed in claim 5, wherein the correction output unit comprises outputting means that outputs a corrected image signal level curve by multiplying the correction coefficient by the present signal level curve.

8. The electronic board as claimed in claim 5, wherein the plurality of optical image sensors comprise contact image sensors.

9. The electronic board as claimed in claim 5, wherein the white board comprises:

an endless white sheet on which the image is to be drawn;

a pair of roller members rotatable about their axes for supporting and feeding the endless white sheet, the endless white sheet being mounted on the pair of roller members; and

a drive motor drivingly connected to at least one of the roller members, the image reading unit being positioned in confrontation with at one of the roller members.

10. A method for formulating a level of image signal comprising the steps of:

provisionally storing a characteristic of a image reading unit in the form of a reference image signal level curve and one of a predetermined coefficient and a threshold level curve, the reference image signal level curve being obtained by correcting an image signal curve outputted by the reading unit when the reading unit reads an image of a predetermined white reference member at a factory so that a peak value of the image signal curve matches a predetermined maximum readable range, and the threshold level curve being

obtained by multiplying the reference image signal level curve by the predetermined coefficient;

determining a correction coefficient providing a part of a present image signal level curve being matched with a part of the reference signal level curve to produce a corrected image signal level curve; and

generating a binary output signal of the corrected image signal level curve by comparing the corrected image signal level curve with either the threshold level curve stored in the characteristic storage unit or a threshold level curve obtained by multiplying the reference image signal level curve by the predetermined coefficient.

11. The method as claimed in claim 10, wherein the determining steps comprises the steps of

reading an image from a white reference surface provided at a reading position to obtain a present image signal level curve before image data is actually retrieved using the reading unit;

comparing the present image signal level curve with the reference image signal level curve stored in the characteristic storage unit; and

determining a correction coefficient required to match at least the portion of the present image signal level curve with the portion of the reference signal level curve.

12. The method as claimed in claim 10, wherein the

generating step comprises outputting a corrected image signal level curve by multiplying the correction coefficient by the present signal level curve.

13. The method as claimed in claim 10 wherein the image reading unit comprises a plurality of optical reading sensors aligned in a row, the image reading unit outputting an image signal based on an image read by the plurality of optical reading sensors.

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